

PATENT CLAIMS

1. A method of installing spiral threaded inserts (19, 38), in which method a first threaded insert (19, 38) is inserted into an installation tool (20) and is screwed into a tapped hole (18) by means of the installation tool (20), characterized in that the first threaded insert (19, 38) is secured in the installation tool (20) to prevent it from falling out.

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2. The method as claimed in claim 1, characterized in that the threaded inserts (19, 38) in each case have a driving tang (40), in that the first threaded insert (19, 38) is secured in the installation tool (20) on the driving tang (40) to prevent it from falling out, and in that the driving tang (40) is cut off from the first threaded insert (19, 38) after the installation of the first threaded insert (19, 38).

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3. The method as claimed in claim 2, characterized in that a securing thread (28) which is fastened to the driving tang (40) is used for securing the first threaded insert (19, 38) in the installation tool (20), and in that the cut-off driving tang (40) is removed from the installed first threaded insert (19, 38) by means of the securing thread (28).

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4. The method as claimed in claims 1 to 3, characterized in that the first threaded insert (19, 38) is brought into a predetermined installation position during the insertion into the installation tool (20).

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5. The method as claimed in claim 4, characterized in that a second threaded insert (33) is firmly arranged in the installation tool (20), the first threaded insert (19, 38) to be installed being oriented, during the insertion into the installation tool (20), at said

second threaded insert (33) relative to the predetermined installation position.

6. The method as claimed in one of claims 1 to 5,
5 characterized in that the installation of the first threaded inserts (19, 38) is effected through inspection ports (12, 15), and in that the installation operation is monitored optically, in particular by means of a borescope (26).

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7. An installation tool (20) for carrying out the method as claimed in claim 1, characterized by a shaft (21), on one end of which first means (29; 30,...,34; 36, 39) for the anti-rotation retention and guidance of 15 a threaded insert (19, 38) and also second means (28) for securing the first threaded insert (19, 38) in the first means (30,...,34; 36, 39) are arranged.

8. The installation tool as claimed in claim 7,
20 characterized in that the first means comprise a head (29) having an elongated circular-cylindrical bolt (30), which bolt (30) has, at the front end, a slotted section (30) for pushing the first threaded insert (19, 38) over it.

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9. The installation tool as claimed in claim 8, characterized in that, below the slotted section (36), the bolt (30) is enclosed concentrically by a hollow-cylindrical mounting sleeve (32) at a distance apart, 30 and in that the mounting sleeve (32) has an internal thread, into which a second threaded insert (33) is firmly screwed in such a way that the first threaded insert (19, 38) pushed over the slotted section (36) abuts at the end face against the second threaded 35 insert (33) and is oriented at the second threaded insert (33).

10. The installation tool as claimed in claim 9, characterized in that the first and second threaded inserts (19, 38 and 33, respectively) are of the same type.

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11. The installation tool as claimed in one of claims 7 to 10, characterized in that the second means comprise a securing thread (28) which is passed through the installation tool (20) in the longitudinal direction, is led out of the installation tool (20) at the front end of the installation tool (20) and can be connected to the first threaded insert (19, 38).

12. The installation tool as claimed in claim 11, characterized in that the first means comprise a head (29) having an elongated circular-cylindrical bolt (30), which bolt (30) has, at the front end, a slotted section (36) for pushing the first threaded insert (19, 38) over it, in that the bolt (30) has a central through-hole (35), and in that the securing thread (28) is passed through the central through-hole (35).

13. The installation tool as claimed in either of claims 11 and 12, characterized in that the securing thread (28) is made of a tear-resistant material, preferably nylon®, and has a diameter of a few 1/10 mm, preferably about 0.4 mm.

14. The installation tool as claimed in one of claims 7 to 13, characterized in that the shaft (21) is composed of a plurality of tubular sections (211, 212, 213) which are arranged one behind the other and are releasably connected to one another.

35 15. The installation tool as claimed in claim 14, characterized in that a slot-shaped opening (25) extending in the longitudinal direction is provided in the foremost section (213), through which slot-shaped

opening (25) a borescope (26) running inside the shaft (21) can be passed outward, and in that a supporting tube (27) for supporting the borescope (26) projecting from the shaft (21) is arranged on the outside of the 5 foremost section (213) in front of the opening (25).

16. The installation tool as claimed in claim 9, characterized in that the mounting sleeve (32) is designed to be rotatable about the bolt (30) and can be 10 fixed in any desired rotary angle position by fixing means (34, 37).

17. The installation tool as claimed in one of claims 7 to 16, characterized in that third means (28) are 15 provided for securing a driving tang (40) which is arranged on the first threaded insert (19, 38) and can be cut off.

18. The installation tool as claimed in claim 17, 20 characterized in that the second means (28) are at the same time provided as third means.